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April 19, 1999

CERTIFIED RETURN RECEIPT P 074 976 683

Phil Palmer Diamond K Gypsum, Inc. P.O. Box 35 Richfield, Utah 84701

Re:

Review of Amendment to Notice of Intention to Commence Large Mining Operations, Diamond K Gypsum, Inc., DKG Quarry, M/015/041 (UTU-69860), Emery County, Utah

Dear Mr. Palmer:

The Division has completed a review of your response to the Division's December 10, 1998 letter regarding the amendment to your Notice of Intention to Commence Large Mining Operations for the DKG Quarry located in Emery County, Utah. Your response was received on February 12, 1999. After reviewing the information, the Division has the following comments which will need to be addressed before tentative approval may be granted. The comments are listed below under the applicable Minerals Rule heading. Please format your response in a similar fashion.

The Division will suspend further review of the DKG Quarry mine NOI until your response to this letter is received. If you have any questions in this regard please contact me, Tony Gallegos, Lynn Kunzler, or Tom Munson of the Minerals Staff. If you wish to arrange a meeting to discuss this review, please contact us at your earliest convenience. Thank you for your cooperation in completing this permitting action.

Sincerely,

D. Wayne Hedberg

Permit Supervisor

Minerals Regulatory Program

REVIEW OF AMENDMENT TO NOTICE OF INTENTION TO COMMENCE LARGE MINING OPERATIONS

Diamond K Gypsum, Inc. (DKG) DKG Quarry Mine

M/015/041 April 19, 1999

R647-4-104 - Filing Requirements and Review Procedures

After this amendment receives approval, the final version of the amendment will need to be added in to the current large mine plan document, or the large mine plan document will need to be revised to incorporate the changes. (AAG)

R647-4-105 - Maps, Drawings & Photographs

105.2 Surface facilities map

Measurements from the scaled surface facilities map give the following approximate acreages: Area B quarry 3.32 acres, quarry area C 4.09 acres, haul road 0.60 acres. A portion of the haul road disturbed acreage is within the Area B quarry area which has been reclaimed, but not yet released; therefore, the actual reclaimed area in Area B quarry is less than 3.32 acres. The haul road sections within Area B occupy an area approximately 250 feet long by 25 feet wide, or 0.14 acres. The current total disturbed acreage is Area B plus Area C plus the road area less the road area within Area B. This gives approximately 8.01 acres as the current site disturbance. Please inform us if these approximate acreages are incorrect.

Please describe the small isolated area labeled "Area B" shown on the surface facilities map to the west of the Area B Quarry. (AAG)

105.3 Drawings or Cross Sections (slopes, roads, pads, etc.)

Photographs of the drainage and crossing were provided in this response; however, cross sections are still preferred. As previously requested, please provide a cross section drawing of the road crossing(s) for the South Salt Wash to Area C. (AAG)

R647-4-106 - Operation Plan

106.2 Type of operations conducted, mining method, processing etc.

The topsoil stockpile along the east edge of the project area and waste overburden locations on the south and southwest edge of the project area were measured using the surface facilities map. These areas are within Area C and were included in the 4.09 acreage figure. The topsoil area is approximately 0.54 acres and the overburden areas cover approximately 0.20 acres. Please inform us if these approximate areas are incorrect. (AAG)

106.3 Estimated acreages disturbed, reclaimed, annually.

The submission described a general sequence of mining of one acre blocks as shown on one of the maps under section 105.2, but this sequence does not specify a time frame of years for the mining sequence. This sequence appears to indicate a yearly increase in mining disturbance of between four and six acres. The submission does not provide a schedule of concurrent reclamation, although reclamation concurrent with operations is proposed. Under

Page 2 Amendment Response Review M/015/041 April 19, 1999

section R647-4-107.6, the submission states the maximum disturbed acreage at any time may not exceed five acres; however, the current amount of surface disturbance (disturbed areas and reclaimed, but unreleased areas) is approximately 8.01 acres.

Please provide an annual schedule of proposed mining and reclamation areas which includes the year and amount of area disturbed and reclaimed during that year for the next five to ten years of operation. An example of such a schedule is attached. A schedule of mining and reclamation would allow DKG to post a bond for the maximum amount of disturbance at any one time, without having to bond for the entire life of mine disturbance of 30 acres. With this schedule we can determine the maximum amount of surface disturbance this project will create at any one time. Without this schedule the amount of surface disturbance to be covered by a reclamation surety would need to be 30 acres as described by this submission as the maximum disturbed acreage. This proposed mining and reclamation schedule can be changed in the future provided the reclamation surety is adjusted to match the new schedule. (AAG)

106.7 Existing vegetation - species and amount

A vegetation survey was supplied in 1995 for the existing area. Photos of that area and of the area involved with this amendment appear similar. Therefore, unless DKG wishes to provide a new vegetation survey for the expansion area, the Division will assume the vegetation is similar and apply the results of the 1995 survey to this area as well. (LK)

R647-4-109 - Impact Assessment

109.2 Impacts to threatened & endangered wildlife/habitat

While the response only included information regarding wildlife species, the BLM indicated that the area was cleared for threatened and endangered plants in 1991. Because of the age of this clearance (9 years), and the potential for a listed cactus to be in the area (which was not a subject of the 1991 clearance), this area should be surveyed for this cactus in mid April, 1999. This survey should be coordinated with the BLM. (LK)

109.4 Slope stability, erosion control, air quality, safety

The operator has stated that he is going to be furrowing the area upon final reclamation. The Division requests that the operator roughen the surface significantly rather than use furrows because it not only provides many micro sites for the seeds to collect and capture moisture, but prevents erosion better than furrows. Please include this erosion treatment in your plan. (TM)

R647-4-110 - Reclamation Plan

110.2 Roads, highwalls, slopes, drainages, pits, etc., reclaimed

At this time the access road is considered part of the project disturbance which will need to be reclaimed. Reclamation of the road would include removal of the culverts and restoration of the natural drainage. If the culverts are to be removed, then the reclamation of the crossing must match the upstream and downstream cross-sections of the original stream channel. (TM)

Page 3 Amendment Response Review M/015/041 April 19, 1999

110.3 Description of facilities to be left (post mining use)

At this time, the access road is proposed to remain in place during active mining operations only. Reclamation of this road will be included as part of the current reclamation plan and reclamation cost estimate. This does not prevent DKG from submitting a request to allow this road to remain in the future. (AAG)

110.5 Revegetation planting program

DKG provided a revegetation plan in July of 1996. Please acknowledge that this 1996 plan will be followed for this new expansion, or provide a detailed revegetation plan which addresses the following questions: What species and rates will be used for seeding? How will seed be applied (broadcast, drilled, etc.)? How will the seed bed be prepared? What, if any, amendments will be used (fertilizers, organics (manure or biosolids), mulch), and how and at what rate will they be applied? When will seeding take place (fall is preferred)? (LK)

R647-4-112 - Variance

This section of the response states at the termination of quarrying the access road will be removed or turned over to Emery County. No variance is required if the culverts will be removed and the drainage channel restored and reclaimed. For the time being, reclamation of the road and drainage will be included in the reclamation plan and reclamation cost estimate. Comments under R647-4-110.3 addressed the possibility of a future variance for the access road to remain. Written notification of Emery County's acceptance of the road would be required prior to the Division allowing the road to remain. (AAG)

R647-4-113 - Surety

No surety estimate was provided in this estimate, although a certificate of liability insurance for \$1,000,000 coverage was included. A certificate of liability insurance is not a form of surety accepted by the Division. The Division has prepared a rough draft reclamation estimate based on the information in this submission. The draft estimate was prepared to assist DKG in preparing a revised reclamation estimate. Please review the proposed reclamation tasks and quantities assumed for this draft estimate. Information requested in this review letter may affect this estimate. (AAG)

m15-41_2.rvw

MINE SCHEDULE OF ACREAGE DISTURBED & RECLAIMED M/015/041 (UTU-69860) DKG Quarry Diamond K Gypsum, Inc. Emery County

last revision April 14, 1999

DRAFT - FOR EXAMPLE PURPOSES ONLY

-Total project disturbance as of 4/14/99 is estimated as 8.01 acres
-Assumed that after 1999 2 additional acres of mine area would be disturbed each year
-Assumed that after 1999 2 acres of disturbance would be reclaimed each year
-Assumed that mining new areas stops in year 2010 & reclamation of remaing disturbance occurs in 2011
-Column "beginning disturbance" = disturbance existing at beginning of the year
-Column "total disturbed" = beginning disturbance + total new
-Column "adjusted total" = total disturbed - released this year

\ 700	Adjusted	Total	Beginning	Total	New Road Area	New Mine Area	Reclaimed this year	Released in 3 vrs	Released Released in 2 vrs in 1 vr	Released in 1 vr	Released this year
5					501			21/2	2.6 =		
MON	8.01	8.01	8.01								
1999	10.01	10.01	8.01	2	0	2	3.18	3.18			
2001	12.01	12.01	10.01	2	0	2	2	2	3.18		
		Ш									
2002	14.01	14.01	12.01	2	0	2	2	2	0	3.18	
0000			7	c		,	,	,	ſ	c	2 40
2003	12.83	16.01	14.01	7	0	7	7	7	7	0	0.10
2004	14.83	14.83	12.83	2	0	2	2	2	2	2	0
	_										
2005	14.83	16.83	14.83	2	0	2	2	2	2	2	2
2006	14.83	16.83	14.83	7	0	2	2	2	2	2	2
									·	,	ļ
2007	14.83	16.83	14.83	2	0	2	2	2	2	7	2
		1			,	ļ	·		ļ	,	
2008	14.83	16.83	14.83	2	0	2	2	2	2	2	2
				,	•		ļ			ļ	ļ
2009	14.83	16.83	14.83	7	0	2	7	7	7	7	7
2010	14.83	16.83	14.83	2	0	2	2	2	2	2	2
		END OF MINING IN YEAR 2010	910								
2011	\mathbf{H}	14.83	14.83	0	0	0	8.83	8.83	2	2	2
2012	10.83	12.83	12.83	0	0	0	0	0	8.83	2	2
2013	8.83	10.83	10.83	0	0	0	0	0	0	8.83	2
2044		000	0000	c	c	c	c	0	C	c	883
2014		9.65	0.00	- t	0	2		>		5	50.5
	FINAL RECL	AMATION RELE	FINAL RECLAMATION RELEASE IN YEAR 2014	4							

RECLAMATION SURET STIMATE DRAFT Diamond K Gypsum, Inc. 04/15/99 2 last revision DKG Quarry filename o:\data\bonding\m15-41.wb3 3 M/015/041 (UTU-69860) **Emery County** 4 Prepared by Utah State Division of Oil, Gas & Mining 5 -This estimate uses a D8 size dozer for most earthwork 6 -This is a draft estimate for the DKG quarry based on the total disturbance of 30 acres 7 -All quantities (acreages, volumes, etc.) in this estimate were assumed 8 -Current site disturbance as of 4/15/99 is estimated as 8.01 acres with 3.18 acres of this being reclaimed & unreleased 9 -This estimate assumes the following conditions at the time of final reclamation: stockpile area = 2 acres. 10 pit floor = 2 acres, pit road = 1 acre, quarry regrading = 2 acres, access road = 5 acres, 2 culverts to remove. 11 overburden regrading 4 ft deep from 5 acres, topsoil regrading 1 ft deep from 10 acres, drill seeding = 30 acres 12 Note: actual unit costs may vary according to site conditions last unit cost update 04/15/99 13 -Amount of disturbed area which will receive reclamation treatment 30.0 acres 14 -Estimated total disturbed area for this mine = 30.0 acres 15 Activity Quantity Units \$/unit \$ Note 16 17 226 452 Ripping stockpile & compacted areas 2.0 acre (9) 18 19 226 452 20 Ripping pit floors 2.0 acre (9) 226 226 21 Ripping pit access roads 1.0 acre (9) Creating safety berms or barriers around highwalls 0 LF 0.15 (10)22 484 968 2.0 acre 23 Regrading quarry areas (7) 24 226 678 (9) 3.0 acre Ripping access roads - dozer 25 484 968 2.0 acre **(7)** 26 Regrading access roads - dozer 0 LF 0.85 0 (11)Sidecast mtl replacement on steep roads- trackhoe 27 500 LF (10)0.15 75 Surface drainage restoration - trackhoe 28 1000 2,000 (8) 2.0 each Culvert removal - trackhoe 29 30 32.267 CY 0.48 15.488 (12)Overburden replacement - dozer 31 Topsoil replacement - dozer 16.133 CY 0.48 7,744 (12)32 Crypto biotic crust replacement - dozer 2.000 CY 0.48 960 (12)33 34 0 (00)Fertilizing (100 lb/acre diammonium phosphate) 0.0 acre 90 35 36 Broadcast seeding (~20 lb/acre) 0.0 acre 170 0 (00)30.0 acre 150 4,500 (00)37 Drill seeding (~13 lb/acre) 38 General site cleanup & trash removal (25% site) 7.5 acre 50 375 (00)39 40 1000 2,000 (00)2 equip **Equipment mobilization** 41 42 363 2,904 (15)**Reclamation Supervision** 8 days 43 Subtotal 39,790 44 3.979 10% Contingency 45 Subtotal \$43,769 46 Escalate for 5 years at 3.27% per yr 7,640 47 Total \$51,409 48

Rounded surety amount in yr 2004-\$

\$1,713

49

50

Average cost per disturbed acre =

\$51,400

RECLAMATION SURET STIMATE Diamond K Gypsum, Inc.

DKG Quarry

filename o:\data\bonding\m15-41.wb3

DRAF last revision

04/15/99

M/015/041 (UTU-69860)

Emery County

Prepared by Utah State Division of Oil, Gas & Mining

last unit cost update

04/15/99

Note	
(9)	Means 1999 & Blue Book 4/98: Cat D8N, U, multi shank rippers, speed 1.0 mph
	Means 1999 & Blue Book 4/98: Cat D8N, U, multi shank rippers, speed 1.0 mph
	Means 1999& Blue Book 4/98: Cat D8N, U, multi shank rippers, speed 1.0 mph
	Means 1999 & Blue Book 4/98: Cat D8N, U, mtl 2550 lb/CY, 50 ft push, used avg vol 0.5CY/LF-berm
(7)	Means 1999 & Blue Book 4/98: Cat D8N, U, mtl 2550 lb/CY, 50 ft push, 1 ft depth
(9)	Means 1999 & Blue Book 4/98: Cat D8N, U, multi shank rippers, speed 1.0 mph
(7)	Means 1999 & Blue Book 4/98: Cat D8N, U, mtl 2550 lb/CY, 50 ft push, 1 ft depth
(11)	Contractor's actual costs, 1991 at E/053/012, Cat 225 Excavator, 20 ft wide road
(10)	Means 1999 & Blue Book 4/98: Cat D8N, U, mtl 2550 lb/CY, 50 ft push, used avg vol 0.5CY/LF-berm
(8)	dogm general estimate - 4ft dia culvert, length?
(12)	Means 1999 & Blue Book 4/98: Cat D8N, U, mtl 2550 lb/CY, 100 ft push
(12)	Means 1999& Blue Book 4/98: Cat D8N, U, mtl 2550 lb/CY, 100 ft push
(12)	Means 1999 & Blue Book 4/98: Cat D8N, U, mtl 2550 lb/CY, 100 ft push
(00)	DOGM general estimate - fertilizing
(00)	DOGM general estimate - broadcast seeding
(00)	DOGM general estimate - drill seeding
(00)	
(00)	DOGM general estimate - site cleanup & trash removal
(00)	DOGM general estimate - equipment mobilization
(15)	Means 1998, 010-036-0180, project manager, minimum \$1,815/wk